

### ABSTRACT

A communication system includes an optical transmission network having an input end and an output end. A wavelength division multiplexer coupled to the input end of the optical transmission network receives data packets directly from each internet-traffic source and modulates, in response to those data packets, a corresponding optical beam having a selected wavelength. At the other end of the optical transmission network, a wavelength division demultiplexer is configured to select a particular optical beam corresponding to each internet-traffic source and to retrieve the data packets placed thereon by the wavelength division multiplexer

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